REMARKS/ARGUMENTS

The present amendment is submitted in an earnest effort to advance the case to issue without delay.

Claims 26 and 27 have been added. These recite specific degrees of ethoxylation for the cocomonoethanolamide. Support is found at page 8 (line 26) and page 13 (lines 14-16).

Claims 1-7 and 13-22 were rejected under 35 U.S.C. § 103(a) as unpatentable over Reid et al. (US Patent 5,085,857) in view of Porter et al. (Handbook of Surfactants, pp. 145-146, 1991). Applicants traverse this rejection.

Applicants' invention is directed at improving the efficiency of silicone deposition onto the hair to enhance conditioning effects. The problem was solved through a formulation comprising an anionic surfactant, a cationic polymer and a water insoluble component such as a silicone of average particle size less than 2 micron, wherein the presence of an ethoxylated cocomonoethanolamide achieves the enhanced deposition of the water insoluble component particles.

Reid et al. mentions various types of anionic and nonionic surfactants. Among the nonionics disclosed is cocomonoethanolamide. See column 2 (lines 53-57) and Examples 4 and 5. There is no teaching or suggestion that cocomonoethanolamide be alkoxylated. Neither is there any suggestion that an alkoxylated cocomonoethanolamide would provide any benefit with respect to the deposition of silicone conditioning agents.

The Examiner has recognized that Reid et al. does not teach alkoxylated cocomonoethanolamide. For this reason Porter et al. was cited. This secondary reference is a handbook describing a great many surfactants of which a substantial number are nonionic.

Under the "Applications (General)" header at page 146, the reference states that the properties [of the ethoxylated alkanolamides] are similar to either the alkanolamides or the ethoxylated alcohols but more expensive than either. It further states that "hence the limited use in practice".

Anyone skilled in the art reading the above description of ethoxylated monoalkanolamides would have little incentive to substitute these materials for non-ethoxylated alkanolamides or for ethoxylated alcohols. The ethoxylated monoalkanolamides are taught not to have any special properties and would be more costly. The motivation for substitution of these materials into the Reid et al. formulas would be absent.

Great reliance has been placed by the Examiner on the Porter et al. statement that the ethoxylated alkanolamides have improved dispersibility and optimum foaming properties at 3-4 moles of EO. The Examiner has also latched onto the statement that the ethoxylated alkanolamides in cosmetic products have similar thickening and foam stabilizing properties to those of the non-ethoxylated materials.

Anyone skilled in the art faced with the problem of the present invention would not have been motivated to utilize ethoxylated monoalkanolamides based on the Porter et al. statements. Applicants' objective was to achieve improved deposition of water insoluble components such as silicones. It is clear from Porter that even with similar thickening and

foam stabilizing properties, the ethoxylated alkanolamides would not be substituted for the non-ethoxylated materials because the former are reported to be more expensive. The advantage of improved dispersibility does not resolve the problem faced by applicants. Particle (e.g. silicone) deposition rather than dispersibility in a solvent was the problem for which applicants sought a solution. Porter et al. does not suggest that ethoxylated alkanolamides would have any benefit in providing improved deposition of particles onto hair. The motivation for substitution is absent. Only through hindsight has the Examiner identified one category of nonionic surfactant in a text devoted to surfactants that covers at least 147 pages of disclosure. The skilled chemist would simply not have selected ethoxylated alkanolamides from the many, many different types of surfactants presented in the Handbook.

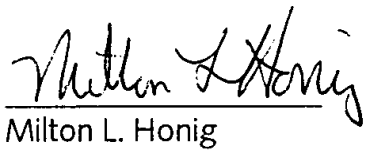
Even had there been some motivation, applicants' comparative experiments have established unexpected results. Applicants have presented a series of comparative experiments. These are found under Example 1 at page 13, Example 2 at page 15, Example 3 at page 16, and Example 4 at page 17.

Formula 1 based on CMEA was found to deposit only 30 ppm of silicone on hair. By contrast, formulas 2-4 replacing the CMEA with varying degrees of ethoxylated CMEA show a silicone on hair deposition ranging from 130 to 580 ppm. Similar results are seen when the CMEA control formula 5 is compared to formulas 6-7. The latter replace CMEA with ethoxylated CMEA and achieve very substantially more silicone deposition on hair. Likewise results are seen with formula 11 (CMEA) in comparison to formula 12 (ethoxylated CMEA). There is a doubling in deposition on hair. Examples 3 and 4 provide still further proof. These results were quite unexpected.

Anyone skilled in the art reviewing Reid et al. would not have expected that the presence of an ethoxylated cocomonoethanolamide would provide any benefit whatsoever to silicone deposition. Indeed, the opposite would have been expected. Addition of more foaming surfactant or co-surfactant would have been thought to increase wash-out of any lingering hair conditioning particles. Nothing in the reference suggests that surfactants or co-surfactants have any deposition enhancing properties. These materials are taught merely as lathering agents.

In view of the foregoing amendment and comments, applicants request the Examiner to reconsider the rejection and now allow the claims.

Respectfully submitted,



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